[4910-13-P]

#### DEPARTMENT OF TRANSPORTATION

**Federal Aviation Administration** 

**14 CFR Part 39** 

[Docket No. FAA-2015-0900; Directorate Identifier 2015-NE-12-AD]

**RIN 2120-AA64** 

Airworthiness Directives; Turbomeca S.A. Turboshaft Engines

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Turbomeca S.A. Arrius 2F turboshaft engines with a certain part number oil pump installed. This proposed AD was prompted by cases of deterioration of the gas generator front bearing due to a link loss between the pump driver and the oil pump shaft. This proposed AD would require inspection, and if necessary, replacement before further flight of the oil pump driver assembly and/or the oil pump shaft, or the oil pump itself. We are proposing this AD to prevent link loss between the pump driver and the oil pump shaft, which could lead to an engine in-flight shutdown, forced landing, and damage to the helicopter.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to http://www.regulations.gov. Follow the instructions for submitting comments.
- Mail: Docket Management Facility, U.S. Department of Transportation, 1200
  New Jersey Avenue SE, West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m.,
  Monday through Friday, except Federal holidays.
  - Fax: 202-493-2251.

For service information identified in this proposed AD, contact Turbomeca S.A., 40220 Tarnos, France; phone: 33 (0)5 59 74 40 00; telex: 570 042; fax: 33 (0)5 59 74 45 15. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

# **Examining the AD Docket**

You may examine the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2015-0900; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the mandatory continuing airworthiness information (MCAI), the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Philip Haberlen, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7770; fax: 781-238-7199; email: philip.haberlen@faa.gov.

#### SUPPLEMENTARY INFORMATION:

#### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2015-0900; Directorate Identifier 2015-NE-12-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to http://www.regulations.gov, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this proposed AD.

#### **Discussion**

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA AD 2015-0049, dated March 17, 2015 (Corrected May 7, 2015) (referred to hereinafter as "the MCAI"), to correct an unsafe condition for the specified products. The MCAI states:

A risk of an in-flight shutdown (IFSD) has been identified on an ARRIUS 2F engine, due to deterioration of gas generator front bearing. This could be the result of lack of lubrication, due to a link loss between pump driver and oil pump shaft.

This condition, if not detected and corrected, could lead to cases of IFSD, possibly resulting in forced landing with consequent damage to the helicopter and injury to occupants.

You may obtain further information by examining the MCAI in the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2015-0900.

#### Related Service Information under 1 CFR Part 51

Turbomeca S.A. has issued Mandatory Service Bulletin (MSB) No. 319 79 4834, Version B, dated October 21, 2014. The MSB describes procedures for inspecting the oil pump driver assembly on the oil pump shaft, the pump driver splines, and the oil pump splines. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this NPRM.

### FAA's Determination and Requirements of This Proposed AD

This product has been approved by the aviation authority of France, and is approved for operation in the United States. Pursuant to our bilateral agreement with the European Community, EASA has notified us of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all information provided by EASA and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design. This proposed AD would require inspection, and if necessary, replacement before further flight, of the oil pump driver assembly and/or the oil pump shaft, or the oil pump itself.

## **Costs of Compliance**

We estimate that this proposed AD affects about 96 engines installed on helicopters of U.S. registry. We also estimate that it would take about two hours per product to comply with this proposed AD. The average labor rate is \$85 per hour. Required parts would cost about \$17,312 per engine. Based on these figures, we estimate the cost of this proposed AD on U.S. operators to be \$1,678,272.

## **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

## **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States,

or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

# List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

# **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

## PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

## § 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Turbomeca S.A.: Docket No. FAA-2015-0900; Directorate Identifier 2015-NE-12-AD.

## (a) Comments Due Date

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

### (b) Affected ADs

None.

# (c) Applicability

This AD applies to all Turbomeca S.A. Arrius 2F turboshaft engines with oil pump, part number (P/N) 0319155050, installed, except for:

- (1) Engines, equipped with an oil pump, P/N 0319155050, that were overhauled in a Turbomeca repair center after January 1, 2013, and
- (2) Engines with a serial number of 34776 or higher, provided that the oil pump was not replaced on that engine since the first flight of that engine on a helicopter.

### (d) Reason

This AD was prompted by cases of deterioration of the gas generator front bearing due to a link loss between the pump driver and the oil pump shaft. We are issuing this AD to prevent link loss between the pump driver and the oil pump shaft, which could lead to an engine in-flight shutdown, forced landing, and damage to the helicopter.

# (e) Actions and Compliance

Comply with this AD within the compliance times specified, unless already done.

(1) Inspect the pump driver assembly on the oil pump shaft, the pump driver splines, and the oil pump splines, using paragraph 2.4.2, Operating Instructions, of Turbomeca S.A. Mandatory Service Bulletin (MSB) No. 319 79 4834, Version B, dated October 21, 2014, as follows:

- (i) After the effective date of this AD, for engines with less than 250 engine hours (EH), since new, since last overhaul, or since last installation of an affected oil pump, whichever occurred later, inspect before exceeding 300 EH since new, since last overhaul, or since last installation of an affected oil pump, as applicable.
- (ii) After the effective date of this AD, for engines with 250 EH or more, but less than 300 EH, accumulated since new, since last overhaul, or since last installation of an affected oil pump, whichever occurred later, inspect within 50 EH.
- (iii) After the effective date of this AD, for engines with 300 EH or more, but less than 800 EH, accumulated since new, since last overhaul, or since last installation of an affected oil pump, whichever occurred later, inspect within 100 EH.
- (iv) After the effective date of this AD, for engines with 800 EH or more, accumulated since new, since last overhaul, or since last installation of an affected oil pump, whichever occurred later, inspect during the next scheduled 500 EH inspection.
- (2) If any oil pump drive assembly and/or oil pump shaft, or the oil pump itself, fails the inspection required by this AD, then before further flight, replace the failed part(s) with part(s) eligible for installation.
- (3) The instruction to report inspection results and the instruction to return a compliance certificate to Turbomeca S.A. as stated in paragraph 2.4.2, Operating Instructions, of Turbomeca S.A. MSB No. 319 79 4834, Version B, dated October 21, 2014, are not required by this AD.

#### (f) Credit for Previous Action

If you inspected the oil pump driver assembly on the oil pump shaft, the pump driver splines, and the oil pump splines, and replaced any part(s) with part(s) eligible for

installation before the effective date of this AD in accordance with Turbomeca S.A. MSB No. 319 79 4834, Version A, dated November 25, 2013, you met the requirements of this AD.

### (g) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, FAA, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request. You may email your request to: ANE-AD-AMOC@faa.gov.

#### (h) Related Information

- (1) For more information about this AD, contact Philip Haberlen, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7770; fax: 781-238-7199; email: philip.haberlen@faa.gov.
- (2) Refer to MCAI European Aviation Safety Agency AD 2015-0049, dated March 17, 2015 (Corrected May 7, 2015), for more information. You may examine the MCAI in the AD docket on the Internet at http://www.regulations.gov by searching for and locating it in Docket No. FAA-2015-0900.
- (3) Turbomeca S.A. MSB No. 319 79 4834, Version B, dated October 21, 2014, can be obtained from Turbomeca S.A., using the contact information in paragraph (h)(4) of this proposed AD.
- (4) For service information identified in this proposed AD, contact Turbomeca, S.A., 40220 Tarnos, France; phone: 33 (0)5 59 74 40 00; telex: 570 042; fax: 33 (0)5 59 74 45 15.

(5) You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Issued in Burlington, Massachusetts, on May 11, 2015.

Colleen M. D'Alessandro,

Assistant Directorate Manager, Engine & Propeller Directorate,

Aircraft Certification Service.

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